

### III. REMARKS

Claims 1- 20 are pending in this application. By this amendment, claims 1 and 8 have been amended. Applicants do not acquiesce in the correctness of the rejections and reserve the right to present specific arguments regarding any rejected claims not specifically addressed. Further, Applicants reserve the right to pursue the full scope of the subject matter of the original claims in a subsequent patent application that claims priority to the instant application. Reconsideration in view of the following remarks is respectfully requested.

In the Office Action, claims 1, 5, 7, 8, 10, 11, and 15 are rejected under 102(b) as allegedly being anticipated by Gilbert *et al.* (U.S. Pat. No. 6,576,546). Further, in the Office Action, claims 2-4, 12-14 and 17-19 are rejected under 103(a) as allegedly being unpatentable over Gilbert *et al.* Finally, claims 6, 9, 16, and 20 are rejected under 103(a) as allegedly being unpatentable over Gilbert *et al.* in view of Wang (U.S. Patent App. Pub. No. 2004/0198055 A1).

With respect to claim 1, Applicants submit that Gilbert fails to disclose each and every feature of the claimed invention as is required under 102(b). For example, Gilbert does not disclose or suggest etching through an interlevel dielectric (ILD) layer and *partially into an underlying cap layer*. (Emphasis added)(See claim 1, as similarly recited in claim 8.)

Interpreting Gilbert only for the purposes of this response, Applicants submit that, to the contrary, Gilbert merely discloses a method that includes placing a conductive plug entirely through an opening that extends from the top surface to the bottom surface of a dielectric layer. Abstract. There is simply no teaching, or suggestion, in Gilbert of the claimed invention including etching into an underlying cap layer whatsoever. In the Office Action the Examiner states that Gilbert discloses "the method comprising the steps of: etching an opening through an interlevel dielectric (ILD) portion of an underlying layer and leaving a remaining cap layer

(Figure 1, reference 112)" (Office Action, page 2, item 1). Reference 112, in Gilbert, is a dielectric layer (Col. 6, line 66) and is never taught, or suggested, to be an underlying cap layer in Gilbert. In sum, Gilbert is completely silent regarding any type of underlying cap layer(s) whatsoever.

Accordingly, Applicants submit that there is no disclosure or suggestion in Gilbert of a method that includes a step of etching through an ILD layer and partially into an underlying cap layer with respect to claim 1. Therefore, Applicants respectfully request withdrawal of the rejection.

In the Office Action, independent claim 8 is rejected under the same rationale as claim 1. As a result, Applicants herein incorporate the arguments submitted above with respect to claim 1. Accordingly, Applicants respectfully request withdrawal of the rejection.

With respect to dependent claims 2-7, and 9-15, Applicants herein incorporate the arguments presented above with respect to the independent claims from which the claims depend. The dependent claims are believed to be allowable based on the above arguments, as well as for their own additional features.

With respect to claim 16, Applicants submit that Gilbert fails to disclose each and every feature of the claimed invention as is required under 103(a). Nor is this feature obvious in view of Gilbert. Specifically, Gilbert does not disclose or suggest, *inter alia*, first etching an opening through an organic ILD and leaving a *remaining portion of an underlying cap layer*. (Emphasis added)(See claim 16.) Further, Wang fails to remedy this glaring deficiency in Gilbert.

In the Office Action the Examiner again cites Figure 1 and reference 112 for the disclosure in Gilbert of "leaving a remaining portion of an underlying cap layer". (Page 4, item 9). As discussed above, there is simply no disclosure whatsoever in Gilbert of the claimed

invention including first etching an opening through an organic ILD layer and leaving a remaining portion of an underlying cap layer to maintain a metal layer thereunder sealed, of any kind.


With respect to dependent claims 17-20, Applicants herein incorporate the arguments presented above with respect to the independent claims from which the claims depend. The dependent claims are believed to be allowable based on the above arguments, as well as for their own additional features.

#### IV. CONCLUSION

In light of the above remarks, Applicants respectfully submit that all claims are in condition for allowance. Should the Examiner require anything further to place the application in better condition for allowance, the Examiner is invited to contact Applicants' undersigned representative at the number listed below.

Respectfully submitted,

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Spencer K. Warnick  
Reg. No.: 40,398

(JJC)

Hoffman, Warnick & D'Alessandro LLC  
75 State Street, 14<sup>th</sup> Floor  
Albany, New York 12207  
(518) 449-0044  
(518) 449-0047 (fax)

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